> What are the raw ingredients for health? I once wrote that my best advice was "don't be poor"

NO HOLDS BARRED Margaret McCartney PPA COLUMNIST OF THE YEAR

Health inequality has to be political

The horrific fire at Grenfell Tower may prove to be a landmark in the national consciousness. Many of our problems are in plain sight. We're so used to them that they seem unwieldy, just "the way things are." The tower block that is now a tomb housed many immigrants on whom London depends, working in jobs that mean antisocial hours, hard graft, and low wages.

The social housing was owned by the local council. The residents' association repeatedly raised concerns about safety in the block. Whatever the inquiry finds, it is clear that the residents did not feel listened to, and dozens have died.

We know that poor people die younger. In Glasgow, in common with many cities, life expectancy varies markedly among neighbourhoods. Men live for an average of 73.1 years in poorer areas such as Ruchill and Possilpark but an average of 84.3 years in the wealthier Kelvinside. This 11 year gap is magnified again by healthy life expectancy, which is lower by about a decade among the poorest citizens. But these deaths usually happen quietly, one by one. These individual tragedies, driven by poverty, are invisible, except on spreadsheets and in retrospect.

What are the raw ingredients for health? I once wrote that my best advice was "don't be poor," and I meant it. But financial health is seldom in our full control. It's easier to be lucky in life if less insecurity is in your way. A decent diet, much physical exercise, good housing, and tobacco use are all bound by money.

Particularly in London, discomfort seems to be rising at the divide between rich and poor—near in kilometres but miles apart in living conditions. In 2014 an outcry erupted over "poor doors." Some upmarket apartment blocks in London got planning permission only by committing to build affordable housing. Such blocks were designed—but with separate lobbies, mail collection, and entrances, to divide residents in the affordable and luxury flats. The argument was that, by avoiding a concierge and maintenance fees, they were cheaper, but they also allow one group to be divided from the other. If we learn anything from the epidemiologist Michael Marmot, it's that the vast majority lose out when inequalities are so marked.

The government response has been criticised as being slow. Practical assistance—such as giving people ready cash for clothing and accommodation—has taken days, and many have complained of disorganisation on the ground. The local community, meanwhile, immediately responded and have been devoted to helping people in need since. Naturally, people are sharing in the sorrow as they donate money.

Grenfell was a horrendous event that calls into question the agency that ordinary tenants have when asking a complex organisation for change. Ordinary, less dramatic, early deaths occur every day with poverty as the risk factor. Safe housing and life expectancy are what real public health is about—and this stuff needs to be political. Surely we care enough to pay a little more tax to try to fix it.

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ETHICS MAN Daniel Sokol

Listening to patients is not enough

When taking a medical history, doctors, whatever their level of seniority, must also ask the right questions

A senior house officer working nights in an emergency department examines a 13 month old girl shortly after 5 am. Over the past few days, the patient has had a raised temperature and vomited three times. She has passed urine and opened her bowels. She has no rash or diarrhoea, and she looks well. The diagnosis is an upper respiratory tract infection. The senior house officer discharges the patient.

Later that day, the girl's condition worsens, and she is readmitted to hospital. She is diagnosed with pneumococcal meningitis and experiences permanent brain damage. The parents sue the hospital trust.

The senior house officer did not record why the parents brought their daughter to hospital. The reason was that they noticed the child's eyes rolling, and this prompted them to call the out-of-hours service. The parents did not volunteer this information because they were not asked for it. At the trial, the judge accepted that the parents would have given the information if asked, and this would have led to a paediatric referral.

In court, the senior house officer said, "Usually, if [there are] rolling eyes, that is scary. I wouldn't need to ask the right question; the parents would tell me first of all."

The question for the judge was whether it was substandard practice for a senior house officer in this position not to obtain that information. The judge found that an emergency medicine consultant or paediatrician would have elicited information about the eye rolling episode, perhaps by asking, "This child looks fine to me, how was she different earlier?" But the judge said that a senior house officer could not be measured against the standard of an experienced clinician, and the case was dismissed.

The law expects history taking to be the same, whether it is by an inexperienced junior doctor or a senior consultant

Family appeal

The family appealed, and the case was heard last March. The judge in the first trial had placed much weight on the trust's medical expert, who said that many parents attended emergency departments "without there being any direct and obvious precipitating factor."

The Court of Appeal was unimpressed, saying, "The fact that there is no clear precipitating factor in many cases is not an answer to a failure to elicit such a factor when there is one."

Asking parents why they brought their child into hospital was not beyond the competence of a senior house officer; if a consultant would have asked the question then so

ACUTE PERSPECTIVE David Oliver

Towards a GP consensus on the future of UK general practice

As a hospital doctor, I rarely write about general practice unless it's to defend, celebrate, or support it, but I'm breaking my "no primary care columns" rule to ask where GPs think that UK general practice should go.

I speak to and read pieces by many GPs and see universal agreement that general practice needs better funding and staffing. I admired the clarity of the Royal College of General Practitioners' paper on *The 2022 GP: a Vision for General Practice in the Future NHS* and have been enlightened by many of the college's campaigns.

But general practice and its local and national leadership form a broad church with a broad range of views and ideologies. Enthusiastic GP innovators and entrepreneurs advocate new models of care, such as federations, accountable care organisations, "primary care home" models, or bespoke services for segmented patient groups. NHS England's lead GP discussed the need to "end the wild west of primary care." Others enthuse about telemedicine, supported self management, and social prescribing.

Ever more GPs say that they prefer salaried, flexible, part time roles and wouldn't embrace full partnership

These models all advocate for more care to be delivered away from hospitals. But many GPs consider patient volumes unsafe or unmanageable and believe that more care being devolved to them means complex patients, formerly managed in hospitals, in the community or in care homes with no extra resources.

On the partnership model, the recent House of Lords committee on NHS sustainability argued that the current model was "broken and unfit for purpose." Ever more GPs say they actively prefer salaried, flexible, part time roles and wouldn't embrace full partnership. Yet many defend the independent contractor partnership model as the guarantor of keeping a personal stake in ensuring quality

GETTY IMAGES

should the senior house officer. The Court of Appeal overturned the decision of the High Court, and the trust lost the case.

In short, the law expects history taking to be the same, whether it is by an inexperienced junior doctor or a senior consultant. Lord Justice Jackson said that history taking was a basic skill that hospital doctors at all levels should possess.

Two mistakes

The senior house officer made two mistakes. Firstly, thinking that the parents would offer clinically significant information without prompting; secondly, thinking that the reassuring history and examination obviated the need to ask why the child had been brought to hospital.

William Osler reportedly said, "Listen to the patient. He is telling you the diagnosis." This case shows that listening is not enough. You must also ask the right questions.

In an Oslerian vein, and no doubt aware of the crisis in morale among junior doctors, Lord Justice Jackson ended the judgment with an uplifting message: "Even good and conscientious doctors may, from time to time, fall short. That is not a reason to lose heart or (even worse) to abandon medical practice. Those who have learnt from past mistakes often have even more to offer."

Daniel Sokol, medical ethicist and barrister, 12 King's Bench Walk, London

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and value. They see partnership as a bulwark against contracts being shifted to private providers en masse. In this view, this model isn't broken—it just needs adequate resources.

In terms of alternative funding models, some GP leaders are arguing for some direct patient payments, while others are resolutely opposed. Some GPs welcome the government's *GP Five Year Forward View*, so long as the government keeps its side of the bargain, while others believe that it falls short of what's needed and that GPs weren't adequately consulted.

Doctrinal differences seem to exist between GP leaders in NHS England, the National Association of Primary Care, the BMA, local medical committees, and campaigning organisations such as GP Survival.

I realise that, in such a large workforce accounting for over a third of medical staff, there's as much diversity of views as you'd find among hospital doctors. But a consistent, aligned set of messages from all parties would help those of us non-GPs who respect and value general practice to support its vital cause.

So, I'd like to ask where GPs think UK general practice should go next. Bring on the rapid responses.

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BMJ OPINION

Our silence is consent to diseases that kill "them"

SPL

In 1831 cholera, "the Empire's revenge," arrived in Britain from India, returning with the colonial forces. A physician described the disease as "outlandish, unknown, monstrous . . . its insidious march over whole continents invested it with a mystery and terror which thoroughly took hold of the public mind."

This account could describe more recent epidemics too: re-read the description with HIV in mind, or Ebola, or Zika. But try reading it and thinking of ischaemic heart disease or mental illness—and it seems to lose its chilling pertinence. Why?

Epidemiologist Elizabeth Pisani's frustration with the ways in which those who have the power (often, "us") distort our perception and treatment of different diseases (which very often affect "them") resulted in her collaboration with Tony Haynes, a composer and the conductor of the Grand Union Orchestra, and the production of their show *Song of Contagion*.

The show explores five disease stories in five acts. It begins with a loud chromatic chorus in Victorian Soho venerating John Snow's ingenuity: "the modern age is born." The ecstatic celebration is suddenly contrasted when the chorus gives way to a dissonant duet singing in Bengali of "stagnant pools" in Kolkata. Cholera may not seem relevant to UK readers, but many living in India—where epidemics continue—still stand "in darkness, waiting for their dawn." "This has more to do with you than first appears," we are told: "silence is consent."

The audience is frequently exhorted to "wipe the sleep from your eyes" and sing the songs as loudly as possible. Pisani thinks that the music might be a useful vehicle to elucidate and communicate the factors that shape health policy decisions.

Dengue and Zika are transmitted by the same species of mosquito. One results in millions of infections annually and kills thousands; the other has only ever affected a few thousand people. So why do the media seem to have got it the wrong way round? The third act pairs an impish, Disney-ish mosquito ("Dance with me—you will never catch me") with a flustered journalist who is trying to report on Dengue in the Caribbean, but is being snubbed by an editor ("where's the drama?"). The journalist only makes headway when the mosquito—accompanied by progressive rhythms which follow its path from east Africa to Brazil—jeopardises wealthy tourists' trips to the Rio Olympics.

Joe Freer is the editorial registrar at *The BMJ*

ANALYSIS

Trial transparency is about more than individual patient data

Tammy Hoffmann and colleagues argue that, although sharing information on participants is important, a focus on other, simpler elements should be the priority

The International Committee of Medical Journal Editors (ICMJE) recently reiterated its commitment to improving trial transparency by sharing individual patient data from randomised trials.[1 2] But, although sharing individual patient data contributes to transparency, it is not sufficient by itself. Trial transparency requires a data sharing package, which begins with trial registration and contains other elements such as protocols, summary results, and other trial materials.

Valuable as sharing individual patient data can be,[3] discussion about it has hijacked the broader conversation about data sharing and trial transparency.[4-6]

Much of the discussion has focused on the complexities and practical problems associated with sharing individual patient data and on the processes and systems needed for responsible data sharing.[6-9] However, many of the data sharing activities that are needed for trial transparency are not complex. We believe that trying to solve the complex issues around availability of individual patient data should not eclipse or distract from a more pressing problem: the unavailability of even summary data and protocols from all controlled trials. Current estimates are that around 85% of research is avoidably "wasted" because of design flaws, poor conduct, non-publication, and poor reporting.[10]

Focusing efforts and attention on making individual patient data accessible might paradoxically exacerbate this waste in research. We argue that simpler and more cost efficient activities should be prioritised. Our suggestions (fig 1) expand on a previously published trial reporting system.[11]

Trial transparency priorities

Prospective trial registration

About half of trials are never published.[12] In 2005 the ICMJE introduced prospective registration as an attempt to minimise selective reporting. However, many trials are still not prospectively registered, even those published in high impact journals,[13] and fewer than half of the journals that publish reports of trials enforce this requirement.[14] As well as the problems of selective publication of trials and outcomes, unregistered trials, or those registered after the completion date, tend to yield larger estimates of treatment effects than those registered before completion.[15]

The minimum details currently required by trial registries are insufficient to enable confident interpretation and use of trial results in clinical practice

Trial registration is simple, inexpensive, and uses existing systems such as ClinicalTrials.gov. The AllTrials campaign has been championing trial registration for all trials, as well as calling for summary results and a full report (full methods, analyses, and results) to be publicly available, but the campaign has stated explicitly: "We do not call for individual patient data to be made publicly available."[16]

The campaign has also highlighted ways in which trial registration could be improved. Although the World Health Organization has fostered the development of an international standard for trial registration data,[17] minimum requirements are neither sufficient nor enforced.

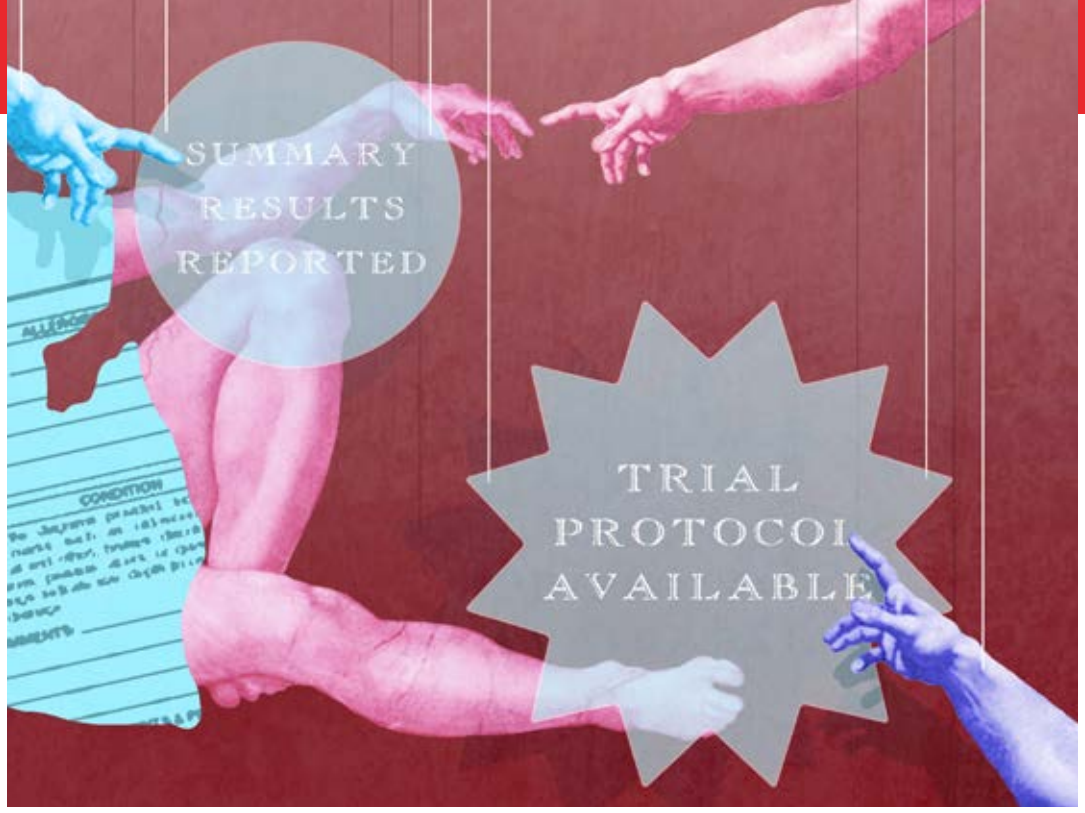
Summary results reported

In 2007, ClinicalTrials.gov began requiring, as part of the US Food and Drug Administration Amendments Act (FDAAA) that summary results of certain categories of trial (for example, those of approved medicines with at least one site in the US or conducted as part of a marketing approval application) be submitted within 12 months of the completion of data collection, whether or not the trial had been formally published in a journal.

The information required includes tabular summaries of participant flow,

KEY MESSAGES:

- Sharing individual participant data is important to trial transparency but not sufficient
- Simpler and more cost efficient measures to improve trial transparency and usability should be prioritised
- These priorities include requiring and enforcing prospective trial registration and publication of summary results, protocols, and other trial materials
- These priorities apply to trials of any intervention, not just to regulated interventions such as drugs and devices
- Without concurrent efforts on these priorities, promoting access to individual patient data may prove an expensive distraction, or even counterproductive



baseline characteristics, prespecified outcome data and adverse events by study arm or comparison group, and statistical analyses. However, subsequent audits have shown that only about a fifth of trials comply.[18] Furthermore, although the FDA is entitled to impose fines of $10 000 (£8000) a day for non-compliance, penalties have never been levied.

Current estimates are that around 85% of research is avoidably "wasted"

In September 2016, partly in response to low compliance and to remove ambiguity about the requirements, a clarification to the FDAAA, called the "final rule," was issued.[19] At the same time, the US National Institutes of Health (NIH) issued a policy requiring all NIH funded trials (including of interventions that are not covered by the FDAAA requirements, such as non-drug interventions) to submit registration and summary results to ClinicalTrials.gov. Compliance with this NIH policy and clarification of the FDAAA rule will need evaluation.

Posting a summary of trial results enables key information to be publicly and promptly available, including to those endeavouring to keep systematic reviews up to date. Indeed, information on participant flow, efficacy, and adverse events in trials is reported more promptly and in a higher proportion of trials in trial registries than in most reports published in journals.[20 21]

It is reasonably simple to do, requires a similar format to that required for publication in a journal article, can use existing platforms, and is not regarded as prior publication by the ICMJE.

Pfizer has estimated that it takes between 5 and 60 hours of person time to post a summary of the results of a completed trial to ClinicalTrials.gov.[22] Assuming an average of 40 hours at $50 per hour, the cost per trial would be about $2000. This is a trivial sum in the context of cost estimates of $42 000 per participant for running a trial.[23]

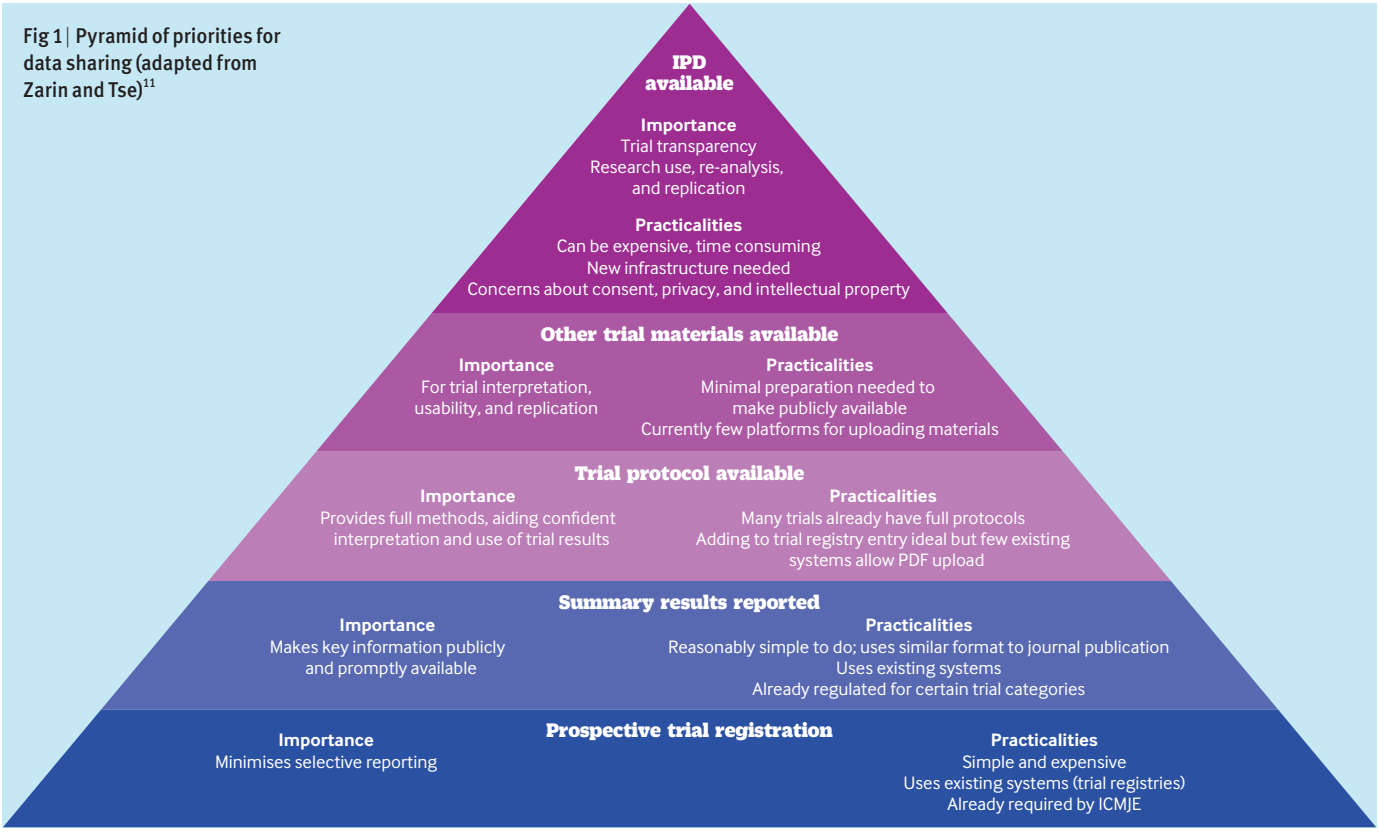


Fig 1 | Pyramid of priorities for data sharing (adapted from Zarin and Tse)[11]

Trial protocol available

The minimum details currently required by trial registries are insufficient to enable confident interpretation and use of trial results in clinical practice. Good trial protocols facilitate full reporting and proper conduct of trials,[24] but they are not publicly available for most trials.

Inclusion of protocols in trial registries would be ideal, but this is currently rare. New regulations in the US[25] require that those conducting trials of drugs and devices (but not other interventions, such as non-drug interventions) submit a copy of the protocol and statistical analysis plan for public posting. Although this is welcome, it applies to only a proportion of the world's trials and it remains to be seen if it will be enforced.

Other trial materials

Many other trial materials that are important for interpreting, using, and replicating trials are rarely included in publications or otherwise made public. They include patient and investigator information (such as consent forms and trial information sheets), statistical analysis plans, blank case report forms, and reproducible descriptions of measurements and interventions. Ideally, these materials should be included in protocols, but this is not usual practice. Furthermore, after the protocol is complete, modifications can occur to some of this information (such as intervention details and data analysis plans) after the trial has started. Details of these modifications and updated materials should also be available.

Missing trial materials limit the interpretation and usability of results. For example, without full details, interventions shown to be useful cannot be taken up by health professionals, patients, other researchers, or policy makers.[16] Analyses have found that more than half of the studies examined have incomplete descriptions of interventions (with intervention materials the most common missing component)[26 27] and that these and other trial materials are generally hard to access, even on request.[26 28] The result is that studies supported by the public and to which patients have contributed are unusable and not replicable by others, with the entire trial investment becoming a sunk cost.

Initiatives to improve access to additional materials have included guidance on descriptions of interventions[29] and public sharing platforms,[30] but these developments have not yet received mainstream support.

Clinical study reports

For some trials (usually for interventions that require regulation or licensing), clinical study reports are produced as the full trial report. Clinical study reports contain many of the elements of the trial transparency package we have described (such as detailed protocols, statistical analysis plans, and efficacy and safety evaluations).[31] As such, they can make an important contribution towards trial transparency and should be made publicly available, even if it is without the individual patient data that they sometimes contain.

All trials for all interventions

Calls to improve access to trial data tend to focus on drug, biological therapy, and medical device trials, probably because regulatory approval is required for these interventions. Despite views to the contrary,[32] these initiatives are equally important for trials of non-regulated interventions.

About 40% of published randomised trials are concerned with the effects of non-regulated interventions.[33] Furthermore, trials of non-regulated interventions (such as exercise and diet; behavioural, psychological, and physical therapies; and public health interventions) are much less likely to be registered than those of regulated interventions,[13] more likely to have inadequate descriptions of interventions,[26] and are not covered by governing bodies able to require that summary results are posted.

The priorities outlined in this article apply to all trials of any interventions, not only to trials of drugs, biological therapies, and devices.

Conclusion

We believe that calls to make individual patient data available are usually made to encourage transparency and enable use, reuse, and replication of research. However, these worthy objectives will not be achieved without tackling the problems that directly stem from poor documentation and reporting of research. The potential contribution of individual patient data will remain unrealised while so much research is poorly reported, irreplicable, and uninterpretable because of selective or deceptive reporting.

The potential contribution of individual patient data will remain unrealised while so much research is poorly reported, irreplicable, and uninterpretable

Trial registries are currently the only feasible mechanism by which the priorities listed here can be achieved. All registries could follow the lead of ClinicalTrials.gov and create fields for summary results to be entered. Additionally, all trialists could be required to upload protocols and other materials. This would make all information accessible in one location, as well as enable monitoring and reporting of compliance with providing information.

We strongly support efforts to improve the availability of individual patient data and acknowledge the many examples of its demonstrable value and the work of various groups towards enabling data sharing.[8] However, a more nuanced approach to increasing the availability of individual patient data may be required. For example, further work is needed to clarify what is meant by individual patient data and when and how different data types and different levels of granularity should be made available.[11]

Access to data from research is an important element in improving trials, particularly as permanent data loss occurs rapidly—at about 17% per year.[34] Without concurrent work on making the many other elements available, inappropriate emphasis on making individual patient data available may prove an expensive distraction, and even counterproductive. The priorities we have identified offer potentially high yield on investment—they are simple, non-controversial, require minimal changes to existing systems, and some are already required for some categories of trial. Obtaining reliable summary data for all trials offers greater public benefit than obtaining all the data for a minority of trials.

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GP PARTNERSHIP MODEL

Politicians want all the NHS to consist of employees

I am horrified that the House of Lords select committee said that the general practice partnership model was no longer fit for purpose (This Week, 8 April).

General practice is an effective gatekeeper to NHS services and is acknowledged worldwide to be cheap and effective. Politicians have starved general practice of reasonable resources, and we have still contrived to give better care.

This statement from the select committee has nothing to do with patient care or affordability. It is because politicians want the NHS to consist of employees who can be easily manipulated, instead of the sturdy groups of principled GPs who resist reforms that are non-evidence based and are not in the best interests of patients.

I hope the BMA will respond robustly to this damning of GPs. Given that I have heard nothing in response from the Royal College of GPs, I wonder if it is fit for purpose?

Jacq Hawkins, GP, Ambleside

Cite this as: *BMJ* 2017;357:j2926

Successive governments are to blame for GP crisis

I was shocked by the findings of the House of Lords Committee on NHS sustainability (This Week, 8 April). I looked at the members of the committee: two surgeons, a professor of medicine, an obstetrician, former politicians, and retired administrators, among others; there were no general practitioners.

If general practice is in crisis, then fault sits squarely with successive governments. The partnership model of general practice serves patients well. If GP numbers had risen in the same way as hospital medic numbers, there would be no crisis. The Quality and Outcomes Framework and the Care Quality Commission have taken doctors' time away from caring for patients. Abolishing these and redirecting their funds into general practice would improve patient care.

GPs need more support, not constant kicking followed by complaints when outcomes aren't perfect. When we are employees, the service will be as good as the average emergency department—worse than the current, failing system and more expensive.

Patrick Lush, GP, Gloucester

Cite this as: *BMJ* 2017;357:j2933

LETTER OF THE WEEK

Doctors must stand up for society in Trump era

Merino et al express concern about the Trump administration (Editorial, 25 February). Mikhail Gorbachev recently wrote, "Politicians and military leaders sound increasingly belligerent, and defence doctrines more dangerous. Commentators and TV personalities are joining the bellicose chorus. It all looks as if the world is preparing for war." He noted that the 80% reduction in nuclear arsenals in the 1980s was enabled by the awareness of leaders that "nuclear war cannot be won and must never be fought."

One recalls the important role of doctor advocacy organisations in educating leaders and the public that nuclear war isn't winnable or medically survivable. Doctors presented evidence based projections of population morbidity and mortality, engaged with the media, and met with leaders to describe the effects of nuclear weapons on medical personnel and infrastructure and on public health.

Yet few doctors have made efforts to educate this generation of leaders and the public regarding the effects of nuclear weapons or about escalating assaults on science—from ignoring evidence based scientific consensus on global warming to the value and risk of vaccines. Doctors must again advocate in the interest of public health, fostering effective relationships with governments, other clinicians, and public health. Doctors of all nations have the responsibility—and ability—to help their leaders and public recognise that policies based on ignorance, rather than science, threaten public health.

George A Gellert, health informaticist and epidemiologist, San Antonio

Cite this as: *BMJ* 2017;357:j2886

UTI IN PREGNANCY

Offering antibiotics to pregnant women

I wish to add a couple of controversial points to Johnston et al's article on urinary infection in a pregnant woman (10-Minute Consultation, 29 April).

First, although the authors say that trimethoprim should be avoided in the first trimester because of its antimetabolic effect on the synthesis of folate compounds, NICE guidance says that trimethoprim can still be offered in the first trimester if folic acid is concomitantly administered and the woman is not suffering from folate deficiency.

Secondly, and not uncommonly, some pregnant women present with a urinary tract infection caused by an *Enterococcus* species that is resistant to cephalosporins and trimethoprim. The best antibiotic for these women is amoxicillin, as the organisms are usually sensitive to it. The problem is when the patient is allergic to penicillins. From personal experience, when such infections are serious, we have no choice but to use intravenous teicoplanin.

Walid Al-Wali, consultant medical microbiologist, Rotherham

Cite this as: *BMJ* 2017;357:j2934

INTERVIEW COURSES

Entry requirements work against poor students

McCartney says that "student interview courses are unfair" (No Holds Barred, 29 April). We have recently examined all the websites and prospectuses in Great Britain for 2017 entry to medical schools.

Although academic criteria are the most important, there is great variation in other requirements. These include volunteering, shadowing, and work experience. We think that the ability to take part in these activities might also discriminate against potential students from poorer backgrounds, and we suggest that medical schools might wish to agree on guidance about these.

Anthea Tinker, professor of social gerontology, London
Victoria Berdugo, Michael Buckland, Lois Crabtree, Anistta Maheswaran, Andrea Ong, Jasmine Patel, Emilia Pusey, Chandini Sureshkumar, intercalating medical students, London

Cite this as: *BMJ* 2017;357:j2939

OBITUARIES

John Walter Bennett

General practitioner (b 1930; q King's College Hospital, London, 1955; DObst RCOG, FRCGP), died from a combined stroke and coronary thrombosis on 2 May 2017

John Walter Bennett was the son of an Anglican priest, and the only man in the family not in Holy Orders. He joined the Royal Air Force and was in the medical branch from 1957 to 1960. He entered general practice in Hucclecote, Gloucestershire, in 1961 and remained in practice until 1993. During this time he was clinical tutor in Gloucester for eight years. In retirement he continued working in his special interest, palliative care, until 1998. John had many and varied interests including athletics, wildlife and country pursuits, music, and travel. Wine became a major interest, and he served on the committee of the BMA's Charles Hastings Wine Club for 44 years and was chairman from 1970 to1980. He was appointed a fellow of the BMA in 1986. John leaves his wife, Mavis; two sons; and a daughter.

John Walter Bennett

Cite this as: *BMJ* 2017;357:j2558

Ivan Reginald Clout

General practitioner and former chairman, Surrey Area Health Authority (b 1920; q Cambridge/ Westminster Hospital 1944; OBE, MA, MRCS Eng, FRCGP), d 19 November 2016

Ivan Reginald Clout served in the Royal Navy during the second world war. On leaving, he set up a general practice in Crawley New Town. He was committed to improving the general conditions of working people through involvement in local government and health service management. He was eventually awarded an OBE for his medicopolitical achievements. He was also a popular GP trainer. Ivan still found time to relax and enjoy himself and was particularly interested in history, foreign travel, and food. He travelled extensively with his second wife, Audrey, a GP in the same practice, to whom he was married for 56 years. Predeceased by Audrey in 2013, he leaves eight children, 11 grandchildren, and nine great grandchildren.

Catherine Clout

Cite this as: *BMJ* 2017;357:j2560

Simon Albert Philip Jenkins

General practitioner Bury (b 1937; q Birmingham 1960; MBE, FRCGP), died from bronchopneumonia on 17 March 2017

Simon Albert Philip Jenkins joined a practice in Bury, Lancashire, in 1963. He was instrumental in organising five separate partnerships into a single effective group practice to form the Minden Medical Centre in the centre of Bury in 1969. Simon was active in medicopolitics, became a fellow of the BMA in 1990, and represented his profession in various organisations. In 1992 he was awarded the MBE for services to the community of Bury. In November 1997 he suddenly developed acute renal failure, which rapidly progressed to end stage renal failure and forced him to take early retirement. He overcame each subsequent obstacle with enormous courage and dignity and with the help of his Jewish faith and his family. He leaves Evie, his wife of 57 years; two children; and four grandchildren.

Deborah Joseph

Cite this as: *BMJ* 2017;357:j2568

David Quartermaine Trounce

Consultant paediatrician Harlow Hospital Group, Essex (b 1922; q Guy's Hospital, London, 1944; DCH, FRCP), d 25 March 2017

After qualifying David Quartermaine Trounce served in the Royal Army Medical Corps in Burma with the West Africa Brigade. After the war he worked at Great Ormond Street Hospital and married the ward sister, Janet Higgins, the daughter of a distinguished surgeon. With a growing family, he worked initially as a general practitioner in Cheshunt, Hertfordshire, before becoming a consultant paediatrician at Harlow Hospital in 1965. He was always hardworking, with a gentle sense of humour and good interpersonal and clinical skills, which were perhaps helped by his time in general practice. His much loved wife, Janet, died two years ago, and he leaves five children (three of whom are doctors), and 10 grandchildren.

Nick Trounce

Cite this as: *BMJ* 2017;357:j2559

Andrew Brent Tullo

Consultant ophthalmologist Manchester Royal Eye Hospital (b 1951; q Bristol 1974; MD, FRCP), died from metastatic prostate cancer on 25 April 2017

Andrew Brent Tullo chose ophthalmology as his specialty and was soon acknowledged as a national and international expert in this topic. He moved to Manchester Royal Eye Hospital in 1985 and established the Manchester Corneal Eye Bank, which became one of the two UK transplant major national centres for eye banking. He published more than 100 peer reviewed articles and collaborated with academic colleagues. After a diagnosis of metastatic prostate cancer in 2004, he took early retirement and moved to Oswestry, Shropshire. During the next 12 years he embraced a new life involving folk music, environmental conservation, and community projects. He leaves his wife, two children, and one grandchild.

Ellen Tullo

Cite this as: *BMJ* 2017;357:j2566

Thomas Cyril Waters

Child psychiatrist Maidstone (b 1930; q Bristol 1957), d 25 August 2016

Thomas Cyril Waters ("Tom") was born into a Welsh mining family. His headmaster in Newent recognised his capability, and combined with the death of his mother when he was 16 this, made him determined to become a doctor. A scholarship to Bristol made this possible. Tom married classmate Sally Hosegood and found his vocation in child psychiatry. He took a consultant post in Maidstone, leading the child and family guidance service from 1968 to 1992. Whether the basis lay in his roots or his Christian faith, Tom's career choices were influenced by his belief in social justice and the founding values of the NHS. After Sally's death in 1989, Tom married another classmate, Pauline Haswell, and died at home on their 26th wedding anniversary. He also leaves three children and six grandchildren.

Steve Waters

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Ion Lazarevich Degen

Teenage soldier, poet and writer, and orthopaedic surgeon

ITAR-TASS PHOTO AGENCY / ALAMY STOCK PHOTO

Ion Lazarevich Degan (b 1925, q Chernivtsi Medical Institute, Ukraine, 1951), died after a period of ill health on 28 April 2017

In late 1944, Lieutenant Ion Degen, a tank commander in the Soviet Union's Red Army, wrote what some consider to be the finest poem from the second world war. After the war he would go on to become a leading orthopaedic surgeon and traumatologist in Kiev, where he performed a successful reattachment of a forearm. He was also an expert in magnetic therapy, publishing scientific papers and a book on the topic. In 1977 he emigrated to Israel, settling in Givataim in Tel Aviv, where he practised as a physician and surgeon for more than 20 years, until the age of 73. In addition to writing poetry, he was the author of nearly a dozen fiction and non-fiction books.

But in the bitterly cold Russian winter of December 1944, he was a hardened veteran teenage soldier, part of a massive force of Red Army battalions preparing for the East Prussian offensive. A proud Jew, Degen was also a devoted communist and patriot, prepared to die for ultimate victory. And he wrote this poem.

My comrade, in your final agony,
Do not call your friends in vain.
Let me warm my palms
Over your steaming blood.
Don't cry, do not moan, you're not a child,
You're not hurt, you're just killed.
Let me take off your boots, as a keepsake,
For we still have to advance and attack.

Degen's poem achieved folk status, and over time the poem—as it was passed on—mutated from the original into several similar versions. Only in the 1980s was Degen finally widely recognised as the author.

War injuries

In January 1945, shortly after the East Prussian offensive had begun, Degen was picked to lead what in essence was a suicide mission to break through German resistance. His tank was hit by German firepower: four crew members died, but Degen was able to escape the tank in a critical condition. His injuries included burns, gunshot wounds, a fractured jaw, a broken arm, a crushed hand, and a battered leg that would leave him with a limp for life. For him, the war was over.

At the hospital he experienced a "hideous pain" throughout his body. As he recovered, completely encased in plaster, he was overcome with despair at the thought of his future, but seeing the doctors who were saving the lives of wounded soldiers, he decided to become a doctor, too.

Degen was born on 4 June 1925 in Mogilev-Podolsky in Ukraine. Growing up he was fond of zoology, botany, and literature—and also military weapons and tactics, which he studied in a communist youth group. By the time he turned 16 in 1941—some 18 days before Germany invaded the Soviet Union—he was proficient in "all types of firearms" and had "a good knowledge" of hand grenades. He joined a volunteer destroyer battalion of ninth and 10th grade students.

On a night-time reconnaissance mission, Degen was shot in the thigh. A military hospital surgeon told him that the leg must be amputated immediately. The boy adamantly refused. After five months recovering, he returned to battle, only to be wounded again in October 1942. After his discharge he trained for a year at the first Kharkov tank training school, finishing in spring 1944 with the rank of junior lieutenant and assigned to be a tank commander.

Antisemitism

After military operations in Belarus and Lithuania, Degen was promoted to commander of a tank platoon. By the time of his final injury, he was credited with destroying 12 German tanks and four self propelled guns. He was highly decorated as a soldier, receiving more than a dozen medals, including several from Poland. He was twice nominated for the title Hero of the Soviet Union, the highest distinction in the country, but was twice rejected—he felt—because he was Jewish.

A proud Jew, Degen was also a devoted communist and patriot, prepared to die for ultimate victory in the war

During his long hospital recuperation he volunteered to help out around the hospital and then studied at Chernivtsi Medical Institute in Ukraine (now the Bukovinian State Medical University). After he graduated, his wish to train in orthopaedics was ignored again—he felt—because of anti-semitism. Instead he was assigned to physical therapy. He went to Moscow to complain to top communist party officials about antisemitism in medicine. He succeeded in receiving party support, but once back in Ukraine he faced continued opposition. His wish to train in orthopaedics finally became a reality after he punched an institute director in the face. In 1973 he received his doctoral degree.

Although proud of his Jewish heritage, Degen ignored the Jewish religion until he was 31. "In 1956 I read the Bible for the first time, and I became a believing Jew," he later said. His next big change came when his 15 year old son urged him to read an essay by Lenin about communist party infrastructure and party literature. Degen later recalled: "That is when I stopped being a communist."

Degen leaves his wife, Lyudmila; a son; and three grandchildren.

Ned Stafford, Hamburg

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DIGITAL HIGHLIGHTS

Air pollution: time to take ownership

Last week *The BMJ*'s editor in chief, Fiona Godlee, talked to Stephen Holgate about a recent report he coauthored, which found that around 40 000 deaths in the UK each year are attributable to exposure to outdoor air pollution. Watch the full interview at bmj.co/pollution_interview. A snippet of their discussion is below:

Are governments taking air pollution seriously enough?

Parts of government are, and local governments do take it seriously. Let's just take London as an example with Sadiq Khan who's doing a wonderful job. But I think with central government, we've got a real problem. Although they declare it's one of the greatest health problems of this particular century, we haven't actually got any real changes coming in yet.

FROM THE ARCHIVE

Payment by colour

On this date in 1950, the Group Areas Act was formally passed in South Africa as part of the government's pursuit of apartheid. The act compelled different racial groups to live separately and paved the way for large scale segregation and discrimination—even in hospitals. In 1969 *The BMJ* carried an article (*Br Med J* 1969;2:586) that uncovered how in South Africa "doctors doing precisely the same kind of work, with what is acknowledged to be exactly comparable skill after obtaining qualifications at the same level of attainment, are paid differently according to the colour of their skin."

And in 1972, the topic was revisited when a number of doctors wrote to the journal to point out the continued disparity in pay, working conditions, and opportunities between black and white doctors in South Africa. A Sue Dowling (*Br Med J* 1972;1:689), who'd recently returned from working in a hospital where she was the only white house physician, highlighted how she was "earning £800 a year more than my fellow African houseman"—a detail that "indicates only a fraction of the total injustice" black doctors experienced. More broadly, she observes how "the medical manpower and facilities available to black South Africa are stretched to their limits, and a political ideology which will not allow the different groups to mix only aggravates the situation."

Protesters in Johannesburg call for equality in 1952

POPPERFOTO/GETTY IMAGES

Another correspondent (*Br Med J* 1969;3:115) describes how black medical students were not permitted to examine white patients, nor even to attend post mortems on white people, and how the race of every doctor in the country had to be entered in the medical register.

The BMJ's 1969 article was hopeful that members of the medical profession everywhere would unequivocally oppose "the differentiation of salaries by skin colour," but it wasn't until 1991 that the apartheid system officially ended.

BMJ Podcast: Stress at work

Stress is one of the leading causes of work absence, recently overtaking back pain, and as a result is an increasing part of a GP's workload. However, good quality evidence about how to deal with stress is actually quite hard to come by. Our latest podcast features occupational and emergency practitioner Alexis Descatha, who offers some practical advice on what to do when you suspect stress is the underlying reason for a consultation.

Listen to the full podcast at bmj.co/stress_at_work

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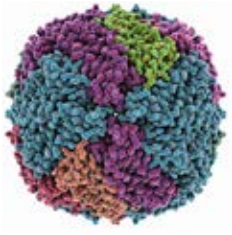

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